

WHAT IS CLAIMED IS:

1. A radiation detection device comprising:

a light-receiving device array in which a plurality of light-receiving devices are one- or two-dimensionally arranged on a substrate;

a scintillator layer deposited on said light-receiving devices and provided with columnar crystals; and

an organic film formed over the top and side surfaces of said scintillator layer and said substrate surface around said scintillator layer and intruding into gaps among the top part of said columnar crystals to cover said scintillator layer.

2. A radiation detection device according to claim 1, wherein said organic film is fixed to said substrate around said scintillator layer.